

HIV/AIDS among Women



Early in the epidemic, HIV infection and AIDS were diagnosed for relatively few women. Today, the HIV/AIDS epidemic represents a growing and persistent health threat to women in the United States, especially young women and women of color. In 2001, HIV infection was the leading cause of death for African American women aged 25–34 years and was among the four leading causes of death for African American women aged 20–24 and 35–44 years, as well as Hispanic women aged 35–44 years [1]. Overall, in the same year, HIV infection was the 6th leading cause of death among all women aged 35–34 years and the 4th leading cause of death among all women aged 35–44 years.

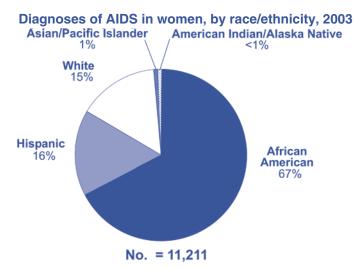
STATISTICS

Cumulative Effects of HIV Infection and AIDS (through 2003)

- Through 2003, 170,679 women were given a diagnosis of AIDS, a number that represents about one fifth of the total 929,985 AIDS diagnoses [2].
- An estimated 81,864 women with AIDS died. These women account for 16% of the 524,060 deaths of persons with AIDS [2].
- Women with AIDS made up an increasing part of the epidemic. In 1992, women accounted for an estimated 14% of adults and adolescents living with AIDS [3]. By the end of 2003, this percentage had grown to 22% [2].
- From 1999 through 2003, the annual number of estimated AIDS diagnoses increased 15% among women and increased 1% among men [2].
- According to a recent CDC study of more than 19,500 patients in 10 US cities, HIV-infected women were 12% less likely than infected men to receive prescriptions for the most effective treatments for HIV infection [4].

AIDS in 2003

- An estimated 11,498 women had a diagnosis of AIDS, a number that represents 27% of the 43,171 AIDS diagnoses [2].
- The rate of AIDS diagnoses for African American women (50.2/100,000 women) was approximately 25 times the rate for white women (2.0/100,000) and 4 times the rate for Hispanic women (12.4/100,000) [2].
- African American and Hispanic women together represented about 25% of all US women [5], yet they account for 83% of AIDS diagnoses reported in 2003 [2].
- An estimated 88,815 women were living with AIDS, representing 22% of the estimated 405,926 people living with AIDS [2].
- An estimated 4,736 women with AIDS died, representing 26% of the 18,017 deaths of persons with AIDS [2].

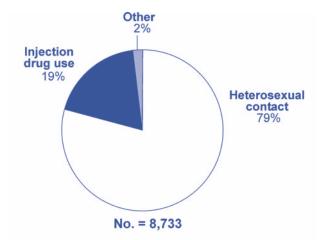


Note. Excludes women from U.S. dependencies, possessions and associated nations.

HIV/AIDS in 2003

- Data from 33 areas (32 states and the US Virgin Islands) with confidential name-based HIV reporting indicate that an estimated 8,733 women were given a diagnosis of HIV infection [2].
- Heterosexual contact was the source of almost 80% of these HIV infections [2].
- Women accounted for 27% of the estimated 32,048 diagnoses of HIV infection [2].
- The number of estimated HIV diagnoses for women remained stable during 2000–2003 [2].

Diagnoses of HIV infection in women, by risk, 2003



Note. Based on 33 areas with confidential name-based HIV reporting

RISK FACTORS AND BARRIERS TO PREVENTION

Young Age

According to a 1998 CDC study of Job Corps entrants aged 16–21 years, HIV prevalence among young women (2.8 per 1,000) was higher than among young men (2.0 per 1,000). African American women in the study were 7 times as likely as white women and 8 times as likely as Hispanic women to be HIV-positive [6]. Another study found that even though overall HIV diagnoses among women decreased slightly from 1984 through 1998, as the youngest group of women (aged 15–19) reached the age at which they initiated risk behaviors, the number of HIV cases caused by injection drug use increased, and the number acquired through heterosexual contact more than doubled [7].

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Lack of Recognition of Partners' Risk

Some women may be unaware of their male partners' risk for HIV infection (such as unprotected sex with multiple partners, sex with men, or injection drug use) [8]. Men who engage in sex both with men and women can acquire HIV from a male partner and can then transmit the virus to female partners. In a recent study of HIV-infected people (5,156 men and 3,139 women), 34% of African American men who have sex with men (MSM), 26% of Hispanic MSM, and 13% of white MSM reported having had sex with women. However, their female partners may not know of their bisexual activity: only 14% of white women, 6% of African American women, and 6% of Hispanic women in this study acknowledged having a bisexual partner [9]. In a recent CDC survey, 65% of the men who have ever had sex with men also had sex with women [10].

Sexual Inequality in Relationships with Men

Some women may not insist on condom use out of fear that their partners will physically abuse them or leave them [11]. Sexual inequality is a major issue in relationships between teenaged girls and older men. In one CDC study of urban high schools, more than one third of African American and Hispanic female teenagers had their first sexual encounter with an older man [12]. These teenagers, compared with teenagers whose partners were also teenagers, were younger at first sexual intercourse, were less likely to have used a condom during first and most recently reported intercourse, or were less likely to have used condoms consistently.

Biologic Vulnerability and Sexually Transmitted Diseases

A woman is approximately twice as likely as a man to contract HIV infection during vaginal intercourse [13]. Additionally, the presence of a sexually transmitted disease greatly increases the likelihood of acquiring or transmitting HIV infection [14]. The rates of gonorrhea and syphilis are higher among women of color than among white women. These higher rates are especially marked in the younger age groups (15–24 years) [15].

Substance Abuse

An estimated 1 in 5 new HIV diagnoses for women is related to injection drug use [2]. Sharing injection equipment contaminated with HIV is not the only risk associated with substance use. Women who smoke or snort crack cocaine or other noninjection drugs may also be at high risk for sexual transmission of HIV if they sell or trade sex for drugs [16]. Also, both casual and chronic substance users are more likely to engage in high-risk behaviors, such as unprotected sex, when they are under the influence of drugs or alcohol [17].

Socioeconomic and Other Societal Factors

Nearly 1 in 4 African Americans and 1 in 5 Hispanics live in poverty [18]. Socioeconomic problems associated with poverty, including limited access to high-quality health care and higher levels of substance use, can directly or indirectly increase HIV risks [19]. Research has shown that women are less likely than men to receive highly active antiretroviral therapy and preventive therapy for opportunistic infections [20].

PREVENTION

The annual number of new HIV infections among all people in the United States has declined from a peak of more than 150,000 cases in the mid-1980s and stabilized at approximately 40,000 cases annually since the late 1990s. Minority populations are disproportionately affected by the HIV epidemic. To reduce further the incidence of HIV, CDC announced a new initiative, Advancing HIV Prevention (http://www.cdc.gov/hiv/partners/AHP.htm), in 2003. This initiative comprises 4 strategies: making HIV testing a routine part of medical care, implementing new models for diagnosing HIV infections outside medical settings, preventing new infections by working with HIV-infected persons and their partners, and further decreasing perinatal HIV transmission.

In the United States, women, particularly women of color, are at risk for HIV infection. CDC, through the Department of Health and Human Services Minority AIDS Initiative (http://www.cdc.gov/programs/hiv09.htm) explores the disparities in minority communities at high risk for HIV and what can be done to reduce these disparities. CDC is also conducting demonstration projects on using women's social networks to reach high-risk persons in communities of color and doing outreach and testing for partners of HIV-infected men.

CDC funds prevention programs in state and local health departments and community-based organizations. The following are some of CDC's programs that focus on women:

- In Maryland, providing rapid HIV testing and implementing SISTA (Sisters Informing Sisters About Topics on AIDS), a program designed to increase the number of African American women who can negotiate condom use with their male partners
- In Illinois, focusing on African American women through prevention case management, SISTA, and Safety Counts, which is an HIV prevention intervention for active injection drug and crack cocaine users
- In California, offering counseling, rapid testing services, referral and other services to minority women 13 years of age and older to decrease the transmission of HIV and to increase awareness of serostatus and linkages to prevention and treatment services

CDC also funds research on interventions to reduce HIV-related risk behavior or biologic outcomes. For example, the Women and Infants Demonstration Projects were focused on low-income, inner-city sexually active women to measure injection drug use, sexual behaviors, and HIV testing behaviors, as well as sexually transmitted diseases and pregnancy. The demonstration projects increased condom use and resulted in an intervention package called Real AIDS Prevention Project, which is available, with training and technical assistance, from CDC.

To prevent mother to child transmission, since 1999, CDC has distributed \$10 million annually to 16 states with high HIV/AIDS rates to carry out prevention programs for pregnant women, to 10 states for enhanced surveillance for infected moth-

ers and babies, and to 5 national organizations to develop and distribute training and educational materials for women and prenatal care providers. These programs are successful: AIDS cases in children have dropped by 90% in the past decade, from 952 cases in 1992 to 59 cases in 2003.

Understanding HIV and AIDS Data

AIDS surveillance: Through a uniform system, CDC receives reports of AIDS cases from all US states and territories. Since the beginning of the epidemic, these data have been used to monitor trends because they are representative of all areas. The data are statistically adjusted for reporting delays and for the redistribution of cases initially reported without risk. As treatment has become more available, trends in new AIDS diagnoses no longer accurately represent trends in new HIV infections; these data now represent persons who are tested late in the course of HIV infection, who have limited access to care, or in whom treatment has failed.

HIV surveillance: Monitoring trends in the HIV epidemic today requires collecting information on HIV cases that have not progressed to AIDS. Areas with confidential name-based HIV infection reporting require-

ments use the same uniform system for data collection on HIV cases as for AIDS cases. The US Virgin Islands and 32 states (Alabama, Alaska, Arizona, Arkansas, Colorado, Florida, Idaho, Indiana, Iowa, Kansas, Louisiana, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, North Dakota, Ohio, Oklahoma, South Carolina, South Dakota, Tennessee, Utah, Texas, Virginia, West Virginia, Wisconsin, Wyoming) have collected these data for at least 5 years, providing sufficient data to monitor HIV trends and estimate risk behaviors for HIV infection.

HIV/AIDS: This term includes persons with a diagnosis of HIV infection (not AIDS), a diagnosis of HIV infection and a later diagnosis of AIDS, or concurrent diagnoses of HIV infection and AIDS.

REFERENCES

- 1. Anderson RN, Smith BL. Deaths: leading causes for 2001. *National Vital Statistics Reports* 2003;52(9):32–33,53–54. Available at http://www.cdc.gov/nchs/data/nvsr/nvsr52/nvsr09.pdf. Accessed November 9, 2004.
- CDC. HIV/AIDS Surveillance Report 2003; (Vol. 15). Atlanta: US Department of Health and Human Services, CDC. In press.
- 3. CDC. *HIV/AIDS Surveillance Report* 1998;10(No. 2):1–43. Also available at http://www.cdc.gov/hiv/stats/hasrlink.htm. Accessed August 26, 2004.
- McNaghten AD, Hanson DL, Aponte Z, Sullivan P, Wolfe MI. Gender disparity in HIV treatment and AIDS opportunistic illnesses (OI). XV International Conference on AIDS; July 2004; Bangkok, Thailand. Abstract MoOrC1032.
- US Census Bureau. Census Brief: Women in the United States: a profile. March 2000. Available at http://www.census.gov/prod/ 2000pubs/cenbr001.pdf. Accessed August 27, 2004.

- 6. Valleroy L, MacKellar D, Karon J, et al. HIV infection in disadvantaged out-of-school youth: prevalence for U.S. Job Corps entrants, 1990 through 1996. *Journal of Acquired Immune Deficiency Syndromes* 1998;19:67–73.
- 7. Lee LM, Fleming PL. Trends in human immunodeficiency virus diagnoses among women in the United States, 1994–1998. Journal of the American Medical Women's Association 2001;56(3):94–99.
- 8. Hader S, Smith DK, Moore JS, Holmberg SD. HIV infection in women in the United States: status at the millennium. *JAMA* 2001; 285:1186–1192.
- 9. Montgomery JP, Mokotoff ED, Gentry AC, Blair JM. The extent of bisexual behaviour in HIV-infected men and implications for transmission to their female partners. *AIDS Care* 2003;15:829–837.
- 10. Valleroy LA, MacKellar DA, Behel SK, et al. The bridge for HIV transmission to women from 23- to 29-year-old men who have sex with men in 6 U.S. cities. National HIV

- Prevention Conference; July 2003; Atlanta, Georgia. Abstract M2-B0902.
- 11. Suarez-Al-Adam M, Raffealli M, O'Leary A. Influence of abuse and partner hypermasculinity on the sexual behavior of Latinas. *AIDS Education and Prevention* 2000;12: 263–274.
- 12. Miller KS, Clark LF, Moore JS. Sexual initiation with older male partners and subsequent HIV risk behavior among female adolescents. *Family Planning Perspectives* 1997;29: 212–214.
- 13. European Study Group. Comparison of female to male and male to female transmission of HIV in 563 stable couples. *British Medical Journal* 1992;304:809–813.
- 14. Fleming D, Wasserheit J. From epidemiological synergy to public health policy and practice: the contribution of other sexually transmitted diseases to sexual transmission of HIV infection. *Sexually Transmitted Infections* 1999;75:3–17.
- 15. CDC. Sexually Transmitted Disease Surveillance, 2003. Atlanta: US Department of Health and Human Services, September 2004. Also available at http://www.cdc.gov/std/stats/toc2003.htm. Accessed November 30, 2004.

- 16. Edlin BR, Irwin KL, Faruque S, et al. Intersecting epidemics—crack cocaine use and HIV infection among inner-city young adults. *New England Journal of Medicine* 1994;331: 1422–1427.
- 17. Leigh B, Stall R. Substance use and risky sexual behavior for exposure to HIV: issues in methodology, interpretation and prevention. *American Psychologist* 1993;48:1035–1045.
- 18. US Census Bureau. Poverty: 1999. Census 2000 Brief. Issued May 2003. Available at http://www.census.gov/prod/2003pubs/c2kbr-19.pdf. Accessed September 16, 2004.
- 19. Diaz T, Chu S, Buehler J, et al. Socioeconomic differences among people with AIDS: results from a multistate surveillance project. *American Journal of Preventive Medicine* 1994;10:217–222.
- 20. Shapiro MF, Morton SC, McCaffrey DF, et al. Variations in the care of HIV-infected adults in the United States: results from the HIV cost and utilization study. *JAMA* 1999;281: 2305–2315.

For more information...

CDC National STD & AIDS Hotlines

1-800-342-AIDS Spanish: 1-800-344-SIDA Deaf: 1-800-243-7889 CDC National Prevention Information Network P.O. Box 6003 Rockville, MD 20849-6003

1-800-458-5231

Web Resources

NCHSTP: http://www.cdc.gov/nchstp/od/ nchstp.html DHAP: http://www.cdc.gov/hiv NPIN: http://www.cdcnpin.org